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Patent Claims

1. A method for operating an active chassis system of a motor vehicle, in which
   - wheels (1-4) of at least one axle are arranged with a toe-in,
   - support assemblies (6) which interact with actuating elements (9) being arranged between the wheels (1-4) and a vehicle body (5), wheel contact forces (F_{11}-F_{14}) of the wheels (1-4) assuming different values as a result of the actuating elements (9) being actuated, and as a result generating a side force (F_{resV}, F_{resH}) at the wheels (1-4) which have a toe-in angle, and a resulting yaw moment (M_z) being produced, characterized in that
     - a desired yaw rate being determined from the information of a device arranged in the vehicle for the purpose of determining the profile of the roadway in a control unit (12), and the wheel contact forces being set as a function of the desired yaw rate.

2. The method as claimed in claim 1, characterized in that the desired yaw rate is calculated as a function of a velocity and/or a yaw rate.

3. The method as claimed in one of claims 1 or 2, characterized in that the desired yaw rate is calculated as a function of a steering wheel angle.

4. The method as claimed in one of claims 1 to 3, characterized in that the device for determining the profile of the roadway detects a profile of

the roadway, calculates a desired driving course from it and the motor vehicle is guided along the desired course by actuating the actuating elements (6).

5. The method as claimed in one of claims 1 to 4, characterized in that a deviation of the direction of travel of the vehicle from the direction of travel predefined by the driver is detected from the information of the device for determining the profile of the roadway, and said deviation is compensated by actuating the actuating elements (9).

6. The method as claimed in one of claims 1 to 5, characterized in that an obstacle is detected by means of the device for determining the profile of the roadway and is avoided by actuating the support assemblies (6).

7. The method as claimed in one of claims 1 to 5, characterized in that when straight-ahead travel is detected by means of the device for determining the profile of the roadway and when there is steering torque which is permanently present, the actuating elements (9) are actuated in such a way that the steering torque is reduced while the direction of travel of the vehicle is maintained.

8. The method as claimed in one of claims 1 to 7, characterized in that in which the wheel contact forces (F_{11}-F_{14}) are set by means of actuating elements (9) which change the prestressing of a helical spring (8) or of an air spring or of a hydraulic spring.

9. The method as claimed in one of claims 1 to 7, characterized in that in which the wheel contact

forces (F_{11}-F_{14}) are set by means of actuating elements (9) which change the prestressing of a stabilizer.

10. The method as claimed in one of claims 1 to 9, characterized in that the toe-in angle and the associated slip angle α at a front axle and/or a rear axle can be changed as required by means of an adjustment element.

11. The method as claimed in claim 1, characterized in that a desired yaw rate is determined from at least one of the sensed values such as wheel speed differences, steering wheel angle and/or steering torque instead of from information from the device for determining the profile of the roadway.